

***FlyBy Math™* Alignment**  
**Arizona Mathematics Standard Articulated By Grade Level**  
**Grade 6**

**Strand 1: Number Sense and Operations**

**Concept 2. Numerical Operations**

Understand and apply numerical operations and their relationship to one another.

<b>Standard</b>	<b><i>FlyBy Math™</i> Activities</b>
PO 2. Solve word problems using grade-level appropriate operations and numbers	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

**Concept 3: Estimation.**

Use estimation strategies reasonably and fluently.

<b>Standard</b>	<b><i>FlyBy Math™</i> Activities</b>
PO 1. Solve grade-level appropriate problems using estimation.	--Predict outcomes and explain results of mathematical models and experiments.

**Strand 2: Data Analysis, Probability, and Discrete Mathematics**

**Concept 1: Data Analysis (Statistics)**

Understand and apply data collection, organization and representation to analyze and sort data.

<b>Standard</b>	<b><i>FlyBy Math™</i> Activities</b>
PO 1. Formulate questions to collect data in contextual situations.	--Conduct a simulation of each airplane scenario
PO 2. Construct a histogram, line graph, scatter plot, or stem-and-leaf plot with appropriate labels and title from organized data.	--Represent distance, rate, and time data using line plots, bar graphs, and line graphs.
PO 3. Interpret simple displays of data including double bar graphs, tally charts, frequency tables, circle graphs, and line graphs.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.
PO 4. Answer questions based on simple displays of data including double bar graphs, tally charts, frequency tables, circle graphs, and line graphs.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.
PO 8. Solve contextual problems using bar graphs, tally charts, and frequency tables.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

### Strand 3: Patterns, Algebra, and Functions

#### Concept 4: Analysis of Change

Analyze change in a variable over time and in various contexts.

Standard	<i>FlyBy Math™</i> Activities
PO 1. Identify values on a given line graph or scatter plot (e.g., Given a line showing wages earned per hour, what is the wage at five hours?).	--Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.

### Strand 4: Geometry and Measurement

#### Concept 4: Measurement - Units of Measure

Understand and apply appropriate units of measure, measurement techniques, and formulas to determine measurements.

Standard	<i>FlyBy Math™</i> Activities
PO 3. Determine a linear measurement to the appropriate degree of accuracy.	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.
PO 11. Determine the actual measure of objects using a scale drawing or map.	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.